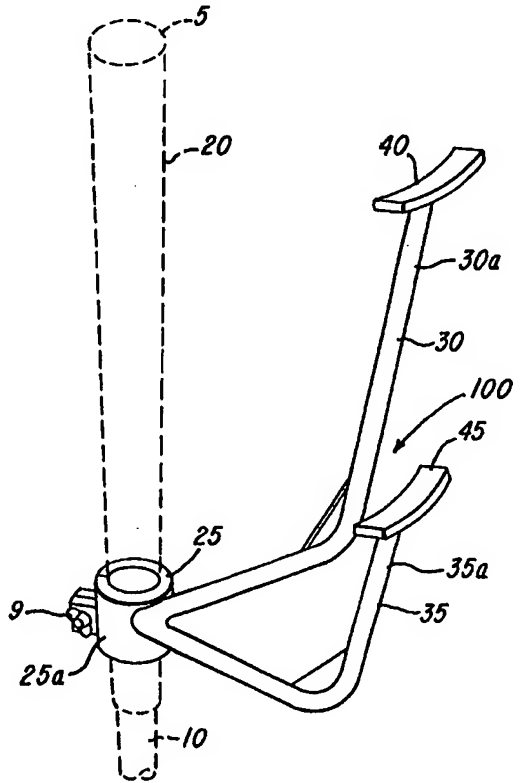




## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<p>(21) International Application Number: PCT/US99/15723</p> <p>(22) International Filing Date: 12 July 1999 (12.07.99)</p> <p>(30) Priority Data: 09/114,884 14 July 1998 (14.07.98) US</p> <p>(71)(72) Applicant and Inventor: MARSHALL, Rogers, Lawrence, Jr. [US/US]; Apartment B, 2911 Avenue E, Holmes Beach, FL 34217 (US).</p> <p>(74) Agents: JENKINS, Matthew, R. et al.; Jacox, Meckstroth &amp; Jenkins, 2310 Far Hills Building, Dayton, OH 45419-1575 (US).</p>		<p>(81) Designated States: AU, JP, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</p> <p><b>Published</b> <i>Without international search report and to be republished upon receipt of that report.</i></p>
<p>(54) Title: APPARATUS FOR ENHANCEMENT OF GOLFER'S SWING</p> <p>(57) Abstract</p> <p>The golf swing enhancer apparatus for use with a golf club comprises a collar which is engagingly connected to the golf club at a position immediately adjacent the grip of the club; and two L-shaped arms each connected to the collar at a first end and extending outwardly from the collar and upwardly towards the top of the club and each having a curved member at a second end. The curved members engaging with the forearms of the golfer at certain positions in a full swing of the golf club when the full swing is correctly executed by the golfer.</p> 		

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APPARATUS FOR ENHANCEMENT OF GOLFER'S SWINGBACKGROUND OF THE INVENTION

The present invention relates to an apparatus for enhancing a golfer's swing. Specifically, it describes a training device which may be attached to a golf club to assist a golfer with achieving the correct club face rotation throughout the back swing and through-swing, achieving proper hinging and release of the golf club during the back swing and through-swing, properly positioning both of his arms when he is at the top of his back swing of the golf club, at the initiation of his down swing of the golf club, the through swing and at the end of the follow-through swing. By achieving proper rotation and hinge of the club and the correct arm positions, the golf club stays on its proper swing plane thereby enabling the golfer to achieve a well-executed shot. The apparatus also overcomes the deficiencies of prior golf training devices because it is not required to be rigidly attached to the golfer's wrist, hands or arms, as prior golf training devices have required and, moreover, is useful for training golfers in the full swing of a club, rather than being limited to training a golfer to putt, or chip which is the case with many prior golf training devices.

For example, U.S. Patent No. 2,273,416 to Norwood describes a golf instruction device which includes a harness that is attached to a golfer's right wrist (for a golfer with a right-handed swing) and a rigid guide which contacts the top of the club above the hands. This device does not address positioning of both hands and arms, nor is it directed to correction of the swing. Rather, it is designed to train a golfer in correcting his putting and the shorter approach shots.

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U.S. Patent No. 3,951,416 to Koch describes a golf training device which includes a clamp at the top of the golf club and a clamp that attaches to the wrist of the golfer's trailing arm. The training device is designed to improve the golfer's short swings and putting. It is not applicable to training for full swings. Moreover, the device restricts the golfer to use a "choked-up" grip because one of the clamps is positioned at the top of the club.

U.S. Patent No. 5,203,568 to Vasquez discloses a device which is designed to train golfers in putting. It does not address a full swing. Similarly, U.S. Patent No. 5,320,354 to Vasquez discloses a device to train golfers in pitching and putting and does not address a full swing.

U.S. Patent No. 5,667,447 to Perham et al, relates to a movement sensing device which is attached to a golfer's leading arm and extends between the forearm to midway up the bicep, encasing the elbow. The device includes electronic sensors which alert the golfer when the leading arm is not properly positioned. The device is directed solely to the proper positioning of the leading arm.

U.S. Patent No. 5,248,146 to Viets et al, discloses a device which attaches to the top of the golf club and includes two rigid clamps for each arm. Once again, this patent is concerned only with arm positioning for putting and does not address full swing positioning.

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#### SUMMARY OF THE INVENTION

It is therefore an object of the present invention to provide an apparatus which can be used to train a golfer in achieving the correct club face rotation throughout the back swing and through-swing.

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It is another object of the present invention to provide an apparatus which can be used to train a

golfer in achieving proper hinging and release of the golf club during the back swing and through-swing.

It is yet another object of the present invention to provide an apparatus which can be used to  
5 train a golfer on proper arm positioning for shots requiring a full swing of a golf club.

It is a further object of the present invention to provide an apparatus which can be used to train a golfer on proper arm positioning for a back swing, a  
10 down swing and a follow-through swing of a golf club.

It is an additional object of the present invention to provide an apparatus which is relatively easy to assemble and use and which is not required to be rigidly attached to a golfer's wrists, hands or  
15 arms.

Additional objects and advantages of the invention will be set forth in part in the description which follows, and in part will be obvious from the description, or may be learned by practice of the  
20 invention. The objects and advantages of the invention may be realized and attained by means of the instrumentalities and combinations particularly pointed out in the appended claims.

To achieve the objects and in accordance with  
25 the purpose of the invention, as embodied and broadly described herein, the golf swing enhancer apparatus of this invention for use with a golf club, the golf club including a shaft, a grip and a club face, the club face for contacting a golf ball on the down swing of a  
30 full swing of the golf club by a golfer, the apparatus comprising: a collar engagingly connected to the golf club at a position immediately adjacent the grip; and two L-shaped arms, each of the two L-shaped arms being connected to the collar at a first end and extending  
35 outwardly from the collar and upwardly towards the top of the club, each of the two L-shaped arms having a curved member at a second end, each of the curved

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members engaging with a separate one of the forearms of the user of the golf club during various points in the full swing of the golf club when the golfer properly executes the full swing.

5           The accompanying drawings, which are incorporated in and constitute a part of this specification, illustrate one embodiment of this invention and, together with the description, serve to explain the principles of the invention.

10

#### BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side perspective view of the apparatus of the present invention;

FIG. 2 is a frontal view of the apparatus;

FIG. 3 is a side view of the apparatus;

15

FIG. 4 illustrates use of the apparatus by a golfer when in the address position;

FIGS. 5 and 6 illustrate use of the apparatus by a golfer when in the position of initiation of the down swing;

20

FIGS. 7 and 8 are close-up of views of the apparatus illustrating how the apparatus is positioned on the forearms of the golfer when in the back swing position;

25           FIGS. 9 and 10 illustrate use of the apparatus by a golfer when in the follow-through swing position; and

30           FIG. 11 is a close-up view of the apparatus illustrating how the apparatus is positioned on the forearms of the golfer when in the follow-through swing position.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Reference will now be made in detail to the present preferred embodiment of the invention, an example of which is illustrated in the accompanying

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drawings in which like reference characters refer to corresponding elements.

In order for a golfer to develop a well-executed full golf swing which can be used for any  
5 shot off a tee or from a fairway, or any other shot requiring that the golfer's arm be fully extended, as compared to a chip shot, a quick uplift or a putt, the golfer must practice development of all four parts of the full swing. The four parts of the full swing are  
10 the back swing, the down swing, the through-swing and ball contact and the follow-through. In order to have a well-executed full swing of the golf club, the golfer must have the proper stance positioning, the proper grip of the club, proper club and arm  
15 positioning and correct motion of the body and rotation of the club through the four parts of the swing.

With reference to FIGS. 1-3, the golf swing enhancer apparatus of the present invention is  
20 illustrated. The apparatus is used with any golf club 5. The golf club 5 includes a shaft 10, a grip 20 and a club face (not shown). The golf swing enhancer apparatus 100 is a one-piece apparatus which comprises a collar 25 which is engagingly connected to the golf  
25 club 5 at a position immediately adjacent the grip 20 and approximately 10 inches down from the top of the golf club. The collar 25 is comprised of an open-ended style clamp which is attached to the golf club and which can be tightened and/or loosened by means of  
30 a butterfly nut and bolt. When the nut and bolt is loosened, the apparatus 100 can be fit over the golf club and positioned on the grip according to user preference. Once positioned at the desired location, the nut and bolt is tightened. Two L-shaped arms 30  
35 and 35 are each connected to the collar 25 at one end and extend outwardly approximately 3 inches from the

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collar and are separated from each other by an angle of approximately 52° and then curve upwardly.

L-shaped arm 30 is longer in the upwardly curving portion of the arm than is L-shaped arm 35. Preferably, the upwardly curving portion of L-shaped arm 30 is approximately 7-1/2 inches in length while the upwardly curving portion of L-shaped arm 35 is approximately 4 inches in length. For a golfer with a right-handed swing, the longer of the two L-shaped arms 30 is positioned at the top of the club and is aligned with the club face. The top of L-shaped arm 30 is spaced approximately 5-1/2 inches out from the grip 20. The shorter of the two L-shaped arms 35 is positioned to the right of the club 5 when viewed from the top of the grip 20 looking down towards the club face. If the golfer is left-handed, the longer of the two L-shaped arms 30 remains in the same position as described above, but the shorter of the two L-shaped arms 35 is positioned to the left of the club 5 when viewed from the top of the grip 20 looking down towards the club face. At the second end of each of the two L-shaped arms 30 and 35 is a curved member, 40 and 45, respectively. These curved members 40 and 45 are the portions of the apparatus 100 which will come into contact with the golfer's forearms during parts of the full swing.

The two L-shaped arms 30 and 35 of the apparatus 100 do not contact the golfer's arms when he is standing in position to address the ball. See FIG. 4. The two L-shaped arms 30 and 35 and their curved members 40 and 45 are positioned in length and angle to contact both the leading and trailing forearms of the golfer when the back swing of the club 5 reaches the correct height for a well-executed back swing (see FIGS. 5-8) and then return to contact both forearms of the golfer at the end of a well-executed follow-through (see FIGS. 9-11). Use of the golf swing



enhancer apparatus 100 ensures proper club face rotation in the back swing and down swing, a correct swing plane and the correct positioning of the arms for the back swing and down swing. As the club 5 is properly rotated and hinged in the back swing and follow-through swing, the L-shaped arms 30 and 35 come in contact simultaneously with both forearms of the golfer, thereby keeping the club 5 in balance and on its proper swing plane. Conversely, if the golfer does not execute a correctly positioned swing, the curved members 40 and 45 do not properly contact the golfer's forearms.

In the preferred embodiment, the apparatus 100 is manufactured as a unitary piece and can be comprised of moldable or castable plastic. Other lightweight metals and reinforced plastic composites can also be used. The dimensions of the apparatus 100 may need to be modified for non-adult or shorter golfers. The golfer may use the golf swing enhancer apparatus 100 attached to any club 5 and may practice his full swing repetitiously, with or without contacting a golf ball, so that, when the apparatus is removed from the club 5, the correct positioning for the four parts of the full swing have been committed to the golfer's memory.

It will be apparent to those skilled in the art that various modifications and variations can be made in the apparatus of the present invention without departing from the scope or spirit of the invention. Thus, it is intended that the present invention cover the modifications and variations of this invention provided they come within the scope of the appended claims and their equivalents.

WHAT IS CLAIMED IS:

1. A golf swing enhancer apparatus for use with a golf club, the golf club including a shaft, a grip and a club face, the club face for contacting a golf ball on the down swing of a full swing of the golf club by a golfer, the apparatus comprising:  
5 a collar engagingly connected to the golf club at a position immediately adjacent the grip; and  
two L-shaped arms, each of the two L-shaped arms being connected to the collar at a first end and extending outwardly from the collar and upwardly towards the top of the golf club, each of the two L-shaped arms having a curved member at a second end, each of the curved members engaging with a separate one of the forearms of the user of the golf club during various points in the full swing of the golf club when the golfer properly executes the full swing.
2. The golf swing enhancer apparatus as claimed in claim 1 wherein the outwardly extending portions of the two L-shaped arms are each approximately three inches in length.
3. The golf swing enhancer apparatus as claimed in claim 1 wherein the two L-shaped arms are separated from each other by an angle of approximately 52°.
4. The golf swing enhancer apparatus as claimed in claim 1 wherein the upwardly extending portion of a first one of the two L-shaped arms is longer than the upwardly extending portion of second one of the two L-shaped arms.

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5. The golf swing enhancer apparatus as claimed in claim 4 wherein the upwardly extending portion of the first one of the two L-shaped arms is approximately 7-1/2 inches in length and the upwardly extending portion of the second one of the two L-shaped arms approximately 4 inches in length.

6. The golf swing enhancer apparatus as claimed in claim 1 wherein the apparatus is comprised of moldable plastic.

7. The golf swing enhancer apparatus as claimed in claim 5 wherein the first one of the two L-shaped arms is positioned at the top of the golf club and aligned with the club face when the apparatus is used by a right-handed golfer.

8. The golf swing enhancer apparatus as claimed in claim 7 wherein the second one the two L-shaped arms is positioned on the right side of the club as viewed looking down the shaft of the club towards the club face.

9. The golf swing enhancer apparatus as claimed in claim 5 wherein the first one of the two L-shaped arms is positioned at the top of the golf club and aligned with the club face when the apparatus is used by a left-handed golfer.

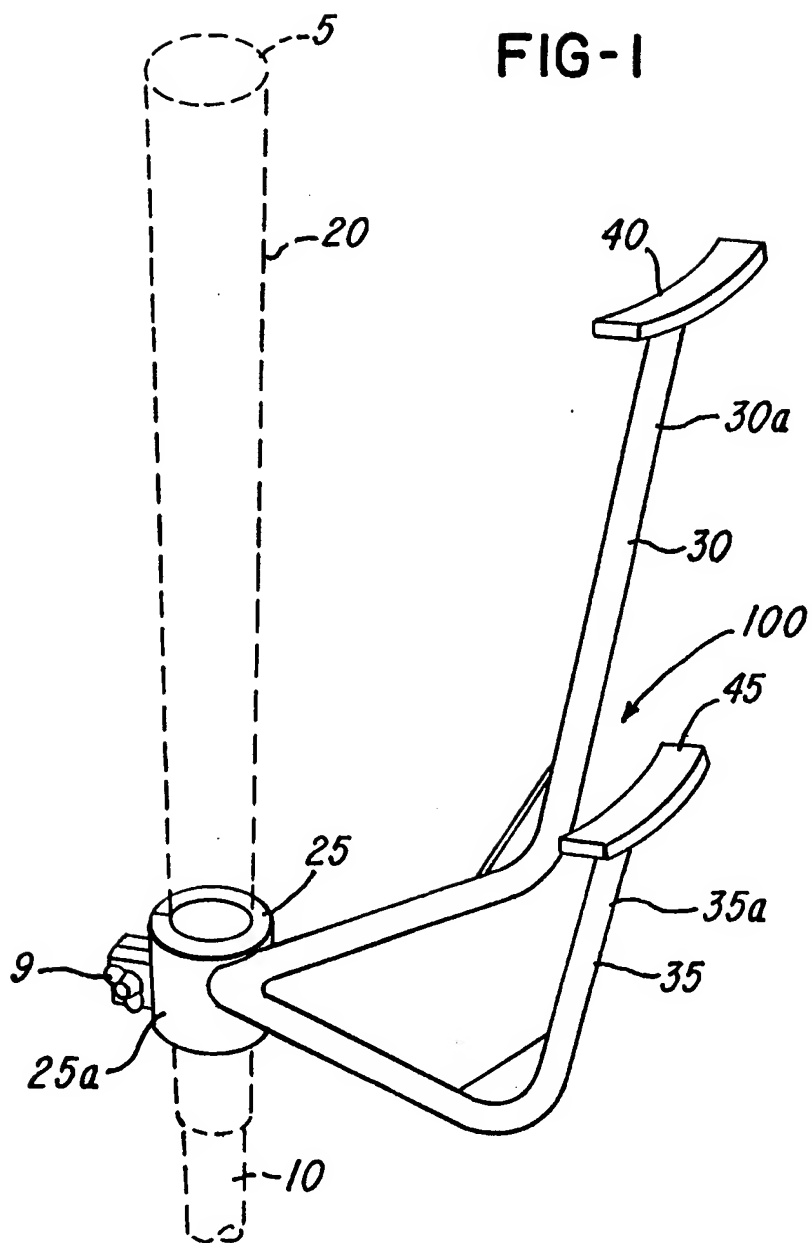
10. The golf swing enhancer apparatus as claimed in claim 9 wherein the second one of the two L-shaped arms is positioned on the left side of the club as viewed looking down the shaft of the club towards the club face.

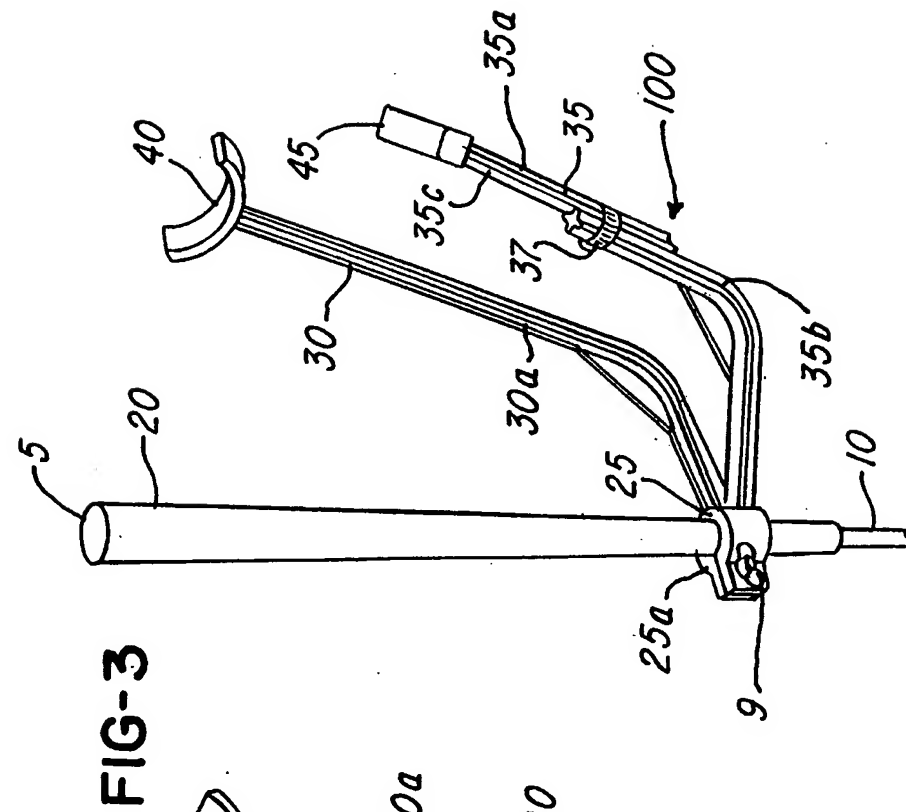
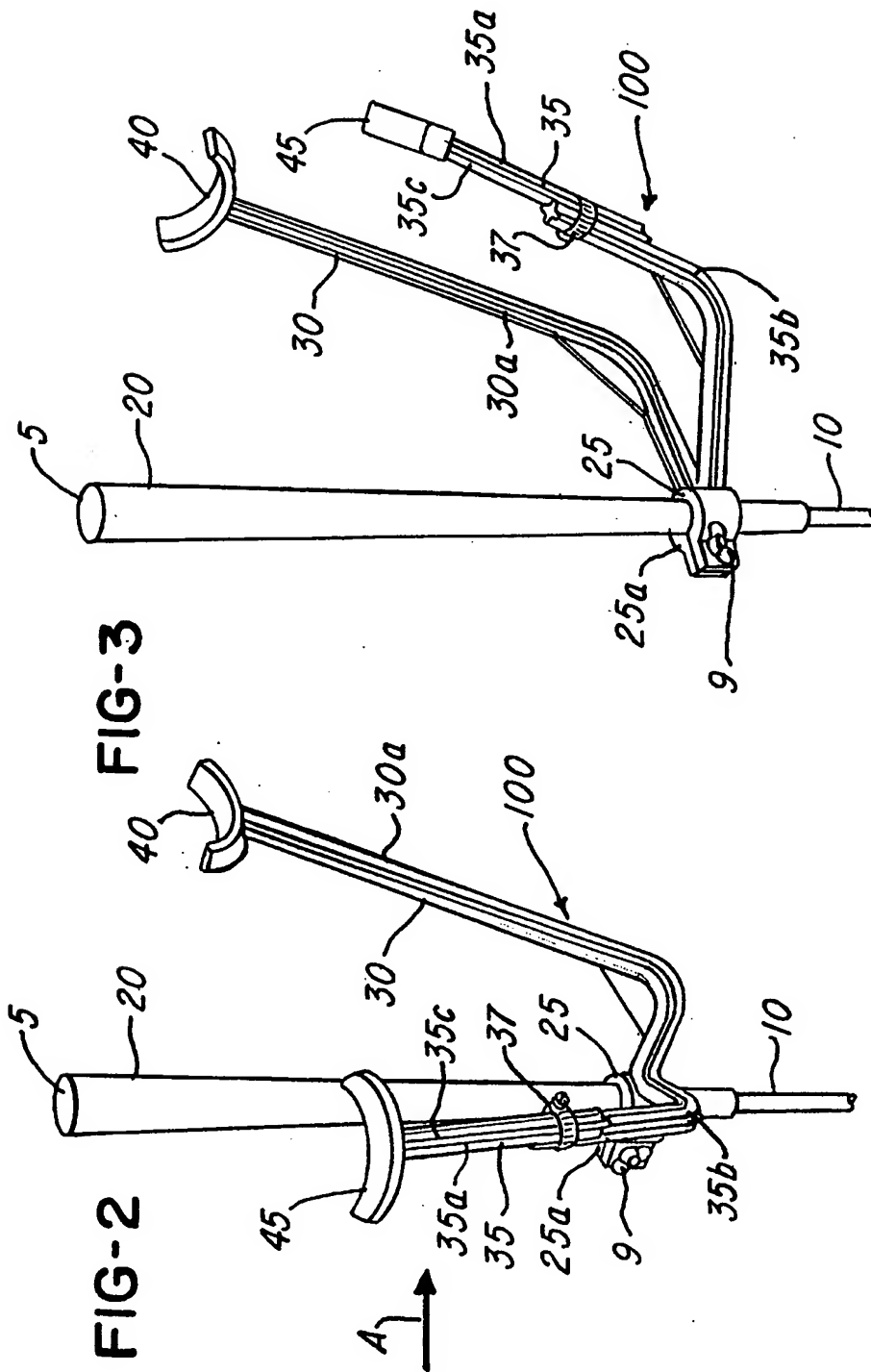
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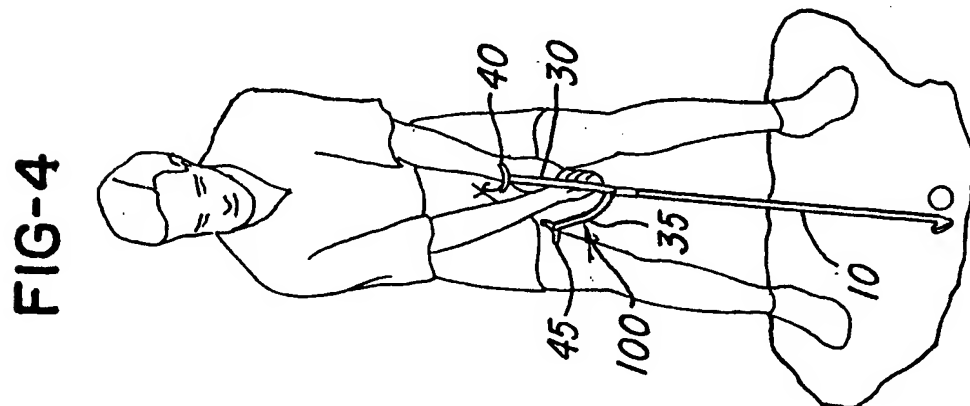
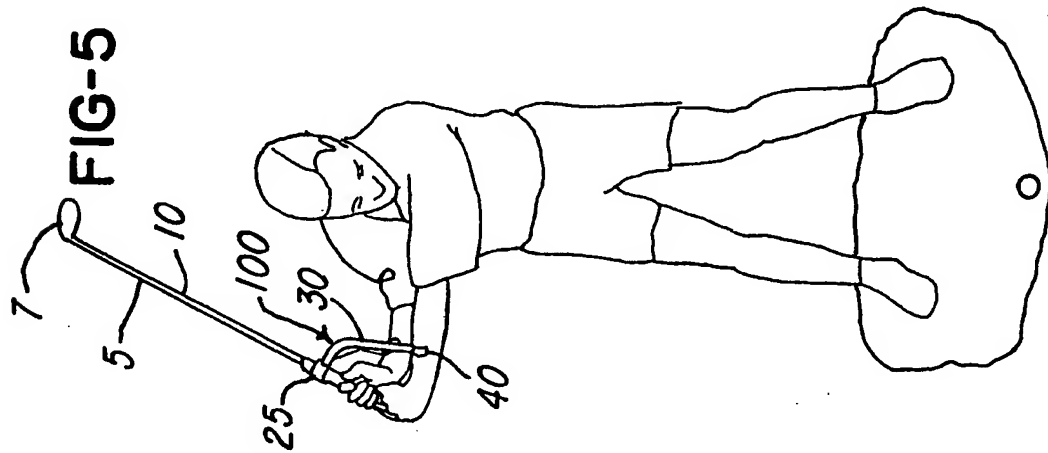
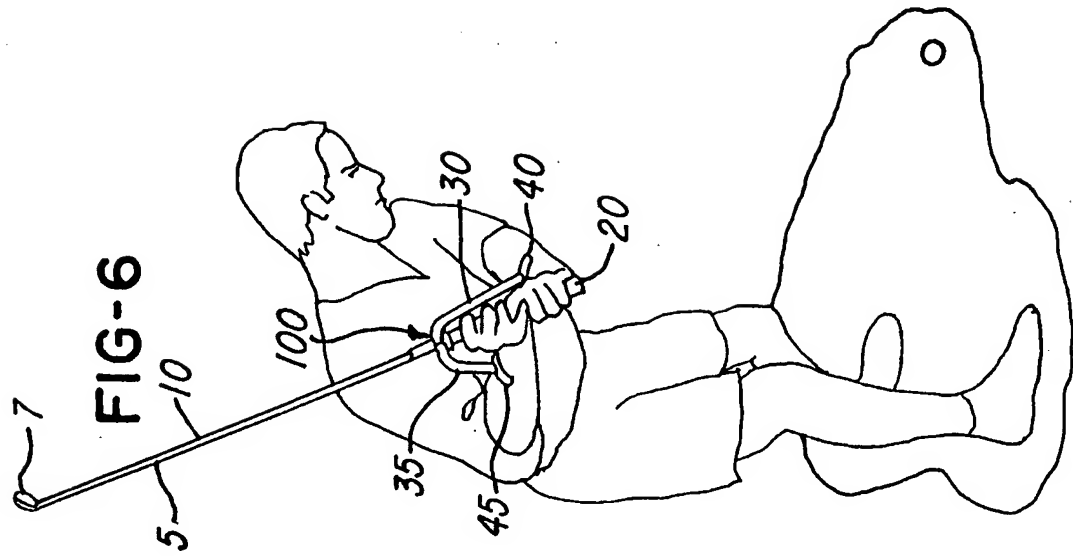
11. The golf swing enhancer apparatus as claimed in claim 1 wherein the collar is positioned approximately 10 inches down from the top of the golf club.

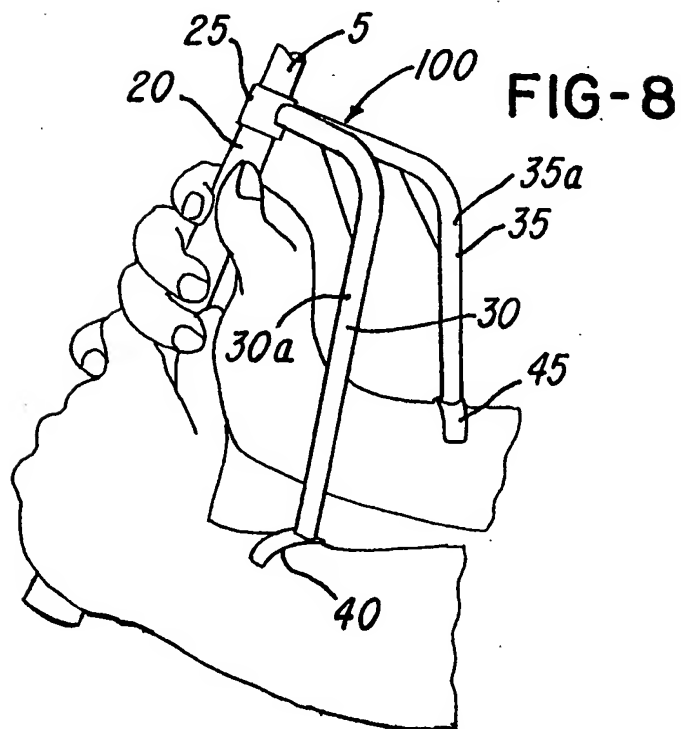
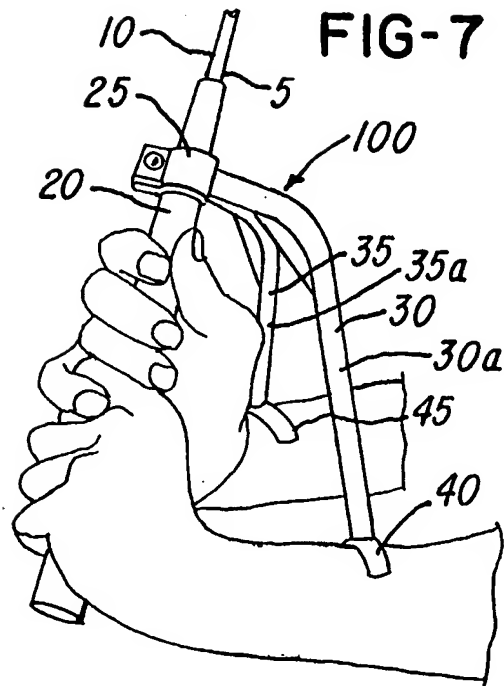
12. The golf swing enhancer apparatus as claimed in claim 7 wherein the top of the first one of the two L-shaped arms is spaced approximately 5-1/2 inches out from the grip of the golf club.

FIG-1



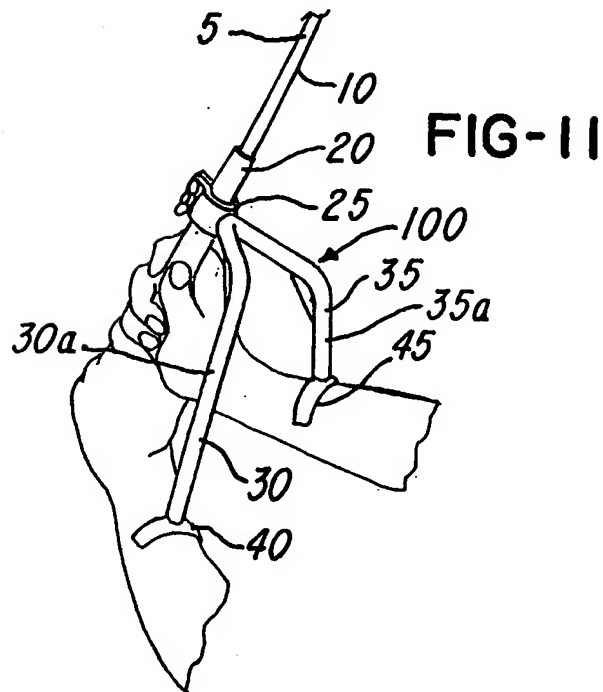
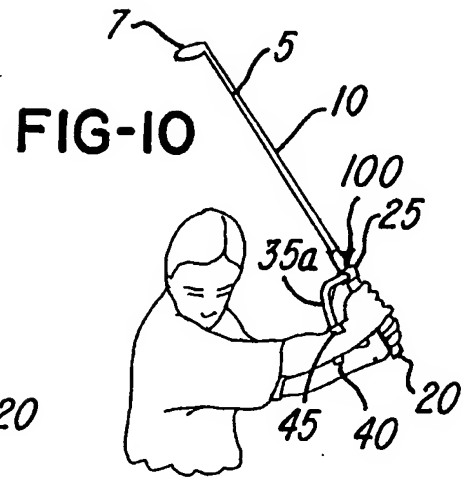
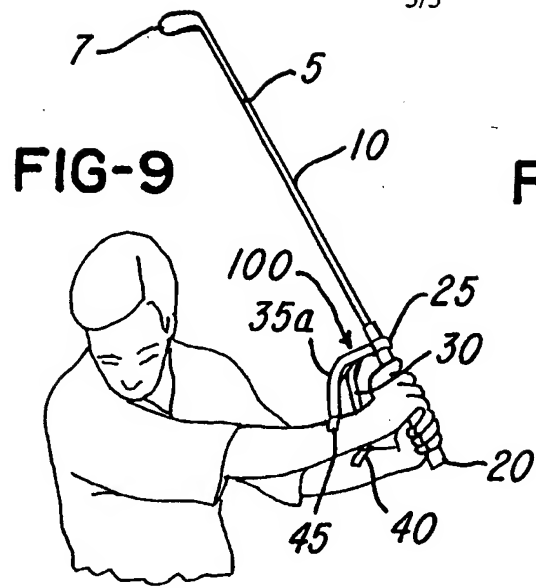








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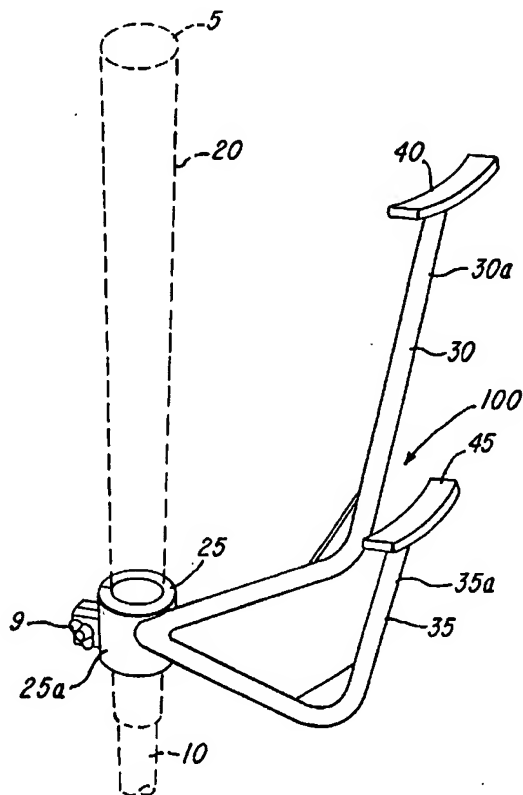
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- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: APPARATUS FOR ENHANCEMENT OF GOLFER'S SWING



(57) Abstract: The golf swing enhancer apparatus (100) for use with a golf club (5) comprises a collar (25) which is engagingly connected to the golf club (5) at a position immediately adjacent the grip (20) of the club; and two L-shaped arms (30,35) each connected to the collar (25) at a first end and extending outwardly from the collar (25) and upwardly towards the top of the club and each having a curved member (40,45) at a second end. The curved members (40,45) engaging with the forearms of the golfer at certain positions in a full swing of the golf club when the full swing is correctly executed by the golfer.

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/15723

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 A63B69/36

According to International Patent Classification (IPC) or to both national classification and IPC

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Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A63B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 96 23552 A (GOLF INVENTIONS PTY LTD ; BROCK ALAN JAMES (AU); BROCK MARY GRACE ( ) 8 August 1996 (1996-08-08) page 7, line 22 -page 10, line 26; figures 1-9 ---	1,2,4-12
Y	US 5 203 568 A (VASQUEZ JOSE C) 20 April 1993 (1993-04-20) abstract; figures 1-3 ---	1,2,4-12
A	US 5 248 146 A (VIETS ALAN ET AL) 28 September 1993 (1993-09-28) , sentence 31 - sentence 34; figure 1 ---	1,2,4,5
A	US 4 145 054 A (STEWART PHIL D) 20 March 1979 (1979-03-20) abstract; figures 1-10 ---	1,2,11
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3 November 1999

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## INTERNATIONAL SEARCH REPORT

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 023 812 A (LORANG WALTER R) 17 May 1977 (1977-05-17) page 1; figures 1-6 -----	1,2

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 99/15723

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9623552 A	08-08-1996	AU 691718 B	21-05-1998
		AU 4474996 A	21-08-1996
		GB 2311228 A,B	24-09-1997
		JP 11504531 T	27-04-1999
		US 5846143 A	08-12-1998
US 5203568 A	20-04-1993	CA 2133467 A	14-10-1993
		GB 2280614 A	08-02-1995
		JP 7505314 T	15-06-1995
		US 5320354 A	14-06-1994
		US 5470073 A	28-11-1995
		WO 9319821 A	14-10-1993
US 5248146 A	28-09-1993	NONE	
US 4145054 A	20-03-1979	NONE	
US 4023812 A	17-05-1977	NONE	